



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,086	06/27/2003	Zhicheng Li	44662B (1062-014C1)	7520
25215	7590	12/14/2005	EXAMINER	
DOBRUSIN & THENNISCH PC 29 W LAWRENCE ST SUITE 210 PONTIAC, MI 48342			FULLER, ERIC B	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,086

Applicant(s)

LI ET AL.

Examiner

Eric B. Fuller

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-15,17-30 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-15,17-30 and 32-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 29, 2005 has been entered.

Response to Arguments

Applicant's argues are directed towards the relative composition of the primary to secondary amines. Applicant argues that Jeffamine D-2000 does not meet the limitation and further alleges that evidence of criticality for the claimed range is not required because the applicants have "submitted sound scientific reasoning as to the importance of the ranges of the claims". This argument is not found convincing. The composition of Jeffamine D-2000 is inconsequential to the rejection because the primary reference explicitly teaches in column 4, lines 23-25 that primary and secondary amines are used. Because the reference is concerned with the functionality of the amines, the amine ratio is controlled. Although the relative amounts of primary to secondary amines are not explicitly taught, the taught amine functionality obviates the applicant's claimed range which comprises higher amounts of secondary amines.

Art Unit: 1762

Regardless, the applicant still has yet to show any criticality of the claimed range.

Applicant alleges that "sound scientific reasoning" has been provided, but this reasoning (from the arguments filed after final) only amounts to a showing that the applicant recognizes an additional benefit for controlling the amine ratio. This reasoning is not evidence that the primary reference does not possess this benefit and that this benefit is only realized within the claimed range, over the entire claimed range, and not outside of the claimed range. Further, the specification explicitly states that the amount of amine may be any suitable amount (page 3, last paragraph). This is evidence against criticality of the claimed range.

All other arguments, pertaining to the amendments, do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Applicant's arguments have not been found convincing. The rejections of the previous Office Action have been maintained where appropriate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 9, 10, 21, 22, 24, 25, 27-29, 33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945).

Locke teaches a two-component sprayed composition that is applied to automobile parts (column 3, lines 1-10). One component comprises aliphatic isocyanates, including isophorone diisocyanate (column 9, lines 30-50). The other component comprises amines (column 4, lines 23-67). The amines may be a mixture of aliphatic primary and secondary amines (column 4, lines 23-30). The components are kept separate until mixed and also is thixotropic (column 8, lines 3-20). The composition amounts are within the applicant's claimed range (column 10, lines 28-50; column 4, lines 40-60). The reference is silent to the performance properties of the resulting coating. However, it is taught to include fillers in order to achieve strength and hardness characteristics (column 7, lines 43-67). It would have been obvious and within the skill of one practicing in the art, through routine experimentation, to optimize the performance properties of the resulting coating by determining the relative amounts of the components in the mixture, including fillers, and exacting amine ratios, absent evidence of unexpected results. By doing so, the life of the product is extended.

Locke teaches the limitations above, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition

Art Unit: 1762

taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

Claims 2, 11, 12, 32, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019), as applied to claim 1 above, and further in view of Burton (US 5,925,466) and Cannady, Jr. et al. (US 4,480,001).

Locke teaches the limitations shown above, but is silent to the substrate being an automotive bed liner. However, Burton teaches that truck bed liners require characteristics that the composition of Locke provides (column 3, lines 1-17). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the composition taught by Locke in the bed liner taught by Burton. By doing so, one would have a reasonable expectation of success as Locke teaches to apply the composition to automobile parts requiring flexibility, hardness, and elasticity and Burton teaches that bed liners require such characteristics.

The references are silent to the coating comprising a static control agent. However, Cannady teaches that resinous coating on metal, as shown above, benefit from the addition of potassium salt so that charge is dissipated and does not build up in the coating. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to add potassium salts to the composition above. In doing so, static build-up is prevented.

Art Unit: 1762

Claims 3, 13-15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466), as applied to claim 2 above, and further in view of Wade et al. (US 5,580,945).

Locke, in view of Burton, teaches the limitations to claim 2 and additionally teaches that the resulting coating is polyurea (column 3, lines 44-50), but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

As to claims 15 and 20, Locke explicitly teaches these limitations in column 4, lines 55-67, and column 7, line 60.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the metering containers of the spray apparatus. Locke does teach to use a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver

Art Unit: 1762

controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Uhrhan et al. (US 4,145,512).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of light stabilizers. However, Uhrhan teaches that the addition of light stabilizers for protection against discoloration and degradation. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use light stabilizers in the composition of Locke and Wade. By doing so, one would reap the benefits of protecting the composition from discoloration and degradation.

Claims 8, 23, and, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 4 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a

Art Unit: 1762

person having ordinary skill in the art to use static control agents in the composition of Locke and Wade. By doing so, one would reap the benefits of achieving quality spray coatings.

Claims 16, 18, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945), as applied to claims 3 and 14 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Burton and Wade, teaches the limitations to claim 3 and 14, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control agents in the composition of Locke. By doing so, one would reap the benefits of achieving quality spray coatings.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945) and Thomaides et al. (US 5,626,840), as applied to claim 18 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Burton, Wade, and Thomaides, teaches the limitations to claim 18, but is silent to the metering containers of the spray apparatus. Locke does teach a

Art Unit: 1762

conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks, can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

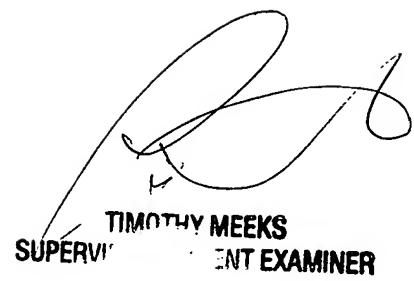
Application/Control Number: 10/609,086

Page 10

Art Unit: 1762



EBF



TIMOTHY MEEKS
SUPERVISOR **SENIOR EXAMINER**